

## TPMP Requirements Should Protect Youth and Priority Populations

TPSAC meeting, May 18, 2023 Lauren K. Lempert UCSF TCORS

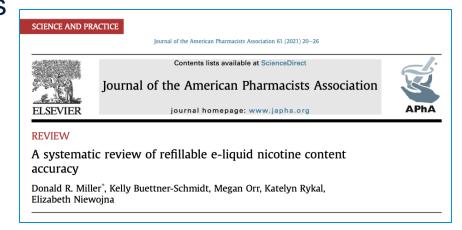
## UCSF TCORS generally supports, but...

- Requirements are floor, not ceiling
- Can't be used to promote safety, quality, FDA endorsement
- Focus on protecting youth and priority populations



### Nicotine labels must accurately reflect contents Section 1120.90

- Nicotine concentrations on labels are often not accurate
- 91% of packs labeled "0 mg/mL" contain nicotine
- Some labeled "0 mg/mL" contained up to 23.9 mg/mL





## Youth don't understand nicotine strength

- Don't understand "mg/mL" or "% nicotine"
- Think mg/mL concentrations are stronger, more harmful
- Underestimate nicotine strength







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### Adolescents and Young Adults Have Difficulty Understanding Nicotine Concentration Labels on Vaping Products Presented as mg/mL and Percent Nicotine

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### Abstract

Introduction: E-cigarette e-liquid nicotine concentrations typically are labeled as mg/mL or pencent nicotine. We examined whether these metrics accurately convey nicotine strength to your e-cigarette users and if youth can compare concentrations presented in mg/mL and percent nicotine.

Aims and Methods: Eight hundred and twenty-one adolescent and young adult e-digarette users participated in the survey. Participants rated nicotine concentration strengths presented as mg/mL (0-80 mg/mL) and percent nicotine (0%-0%) from "no nicotine" to "very high nicotine." Participants also viewed pairs of nicotine concentrations (e.g., 18 mg/mL vs. 5%) and indicated which concentration was stronger of if the concentrations were neuvilent.

Results: On average, participants correctly identified 5.92 (2.68) of 18 nicotine strengths, correctly identifying strengths labeled as mgm. (1.3.47 (2.08)) more often than percent nicotine (2.64 [13.8], p. < .001). Excluding nicotine-free, participants rated concentrations presented as mg/mL as stronger, more addictive, and more harmful than equivalent concentrations presented as percent nicotine. Participants seldom correctly identified that one concentration was stronger or that both were equivalent (7.58 [5.88] of 19 pairings), although they more often correctly identified the stronger concentration when it was presented in mg/mL (4.02 [50 = 3.01]) han in percent nicotine (2.53 [2.73], p. < .001). The most consistent predictor of correct answers on these tasks was familiarity with using both products labeled as mg/mL and labeled as percent incotine.

Conclusions: Young e-cigarette users had difficulty understanding nicotine concentrations labeled using the most common metrics, raising concerns about inadvertent exposure to high nicotine levels and suggesting that a more intuitive labeling approach is needed.

Implications: This study extends prior work showing that young e-cigarette users often are uncertainwhere the e-liquid she yes contain incotine by demonstrating that addescents and young adults have difficulty understanding incotine concentrations believed using the two most common metrics (ingrim. and percent nicotine). Errors generations ly underestimated nicotine extending incoming the properties of th

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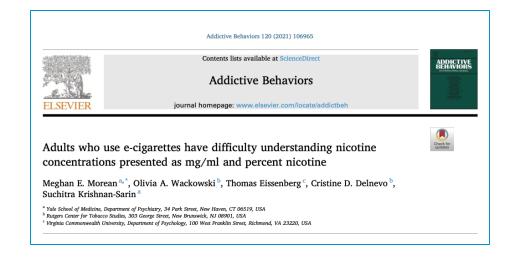


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## Adults are also confused about nicotine strength

- Also think concentrations presented as % nicotine are weaker than mg/ml
- Likely worse if education or language barriers





## Inaccurate labels = greater risk to consumers

- Misunderstanding, confusion, disregard about amount of nicotine
- Consumers may inhale more nicotine than intended
- May lead to continued use and addiction
- All labels should use same metric to clearly and accurately convey nicotine strength



## E-cig shelf life must be specified Section 1120.102

- E-cig liquids get contaminated, more toxic over time
- Expiration dates should be required on labels
- Expired or deteriorated products must be removed from shelves





# Final rule should protect health of youth and priority populations

- Compliance can't be used to promote safety, quality, or FDA endorsement
- Nicotine concentrations on labels must accurately reflect contents
- Nicotine strength on labels must be presented in measures that youth and adults understand
- Expiration dates must be required on labels, and expired products must be removed from shelves

